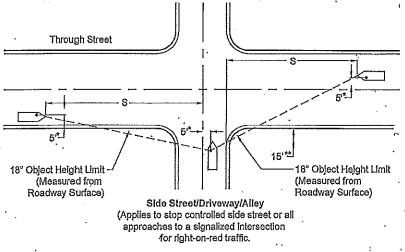
DIVISION OF PERMITTING AND DEVELOPMENT REVIEW FREDERICK COUNTY, MARYLAND SIGHT DISTANCE ANALYSIS

PROJECT NAME				
MAJOR ROAD				
MINOR ROAD (DRIVEWAY)				
<u>INTERSECTION DRAWING</u> :				
	_	V	ICINITY MAP	
MAJOR ROAD POSTED SPEED CALCULATE ACTUAL (MEASURED) SIGHT DISTANCE **: L ** MOST LIMITING – HORIZONTAL AND /OR VERTICAL	ED□ ESTIMATED			
INTERSECTION	SIGHT DISTANCE (<u>SD)</u>		
MINOR ROAD DRIVEWAY APPROACH GRADE — NUMBER OF LANES LEFT TURNING VEHICLE MUS DESCRIPTION OF SUBSTANTIAL VOLUME OF MAJ	ST CROSS OR ROAD TRAFFIC			
REQUIRED (CALCULATED) SIGHT DISTANCE: L	EF1 F	I., RIGHI —	F1.	
Notes:				
I,	certify that the prop	osad antranca de	ascribad abova maa	tc
AASHTO standards for intersection sight distance.	, certify that the prop	osea emiance ad	escribed above frice	ıs
7 North O Standards for intersection signit distance.				
Signed —	- PE/PLS/ MD Reg. N	lo. ———	– Date ———	
STOPPING SI	GHT DISTANCE (SS	<u>D)</u>		
REQUIRED (CALCULATED) SIGHT DISTANCE: LEF	T FT., RI	GHT	_	
,				
Notes:				
I,	, certify that the prop	osed entrance de	escribed above mee	ts
AASHTO standards for stopping sight distance.				
Signed —	DE/DIS/ MD Dog	No	Data	
Jigiicu —	- I L/I L3/ WID REY.	NU. ———	— Daic ———	1/09

INTERSECTION AND DRIVEWAY SIGHT DISTANCE (ISD)

In order to provide the opportunity for vehicles at an intersection to safely cross or make left or right turns onto a through street, adequate sight distance must be provided. Sight distance should be based on the design speed for the roadway. The sight distance requirements outlined below are required for all public street intersections and at all intersections of commercial driveways onto public streets generating more than 5 trips/hour. Internal driveway intersections on private property and residential driveways are excluded from these requirements.

The figure below depicts the technique used to determine the driver's eye location and an approaching vehicle; a line is then drawn to connect these 2 points. Continuous unobstructed line of sight must be provided along this line and throughout the approach to the intersection, providing an unobstructed sight triangle to the side street driver. Sight lines are to be drawn on roadway and landscaping plans to represent the areas that must be free of all objects and topography in excess of 18 inches above the roadway surface, however, certain vegetation will be allowed. Vegetation placed within the sight triangle will be of a low variety that remains below 18 inches when mature. Trees can be considered within the triangle as long as the canopies are above 8 feet, they are a single trunk variety, and they are not spaced in a configuration that creates a visually obstructive "picket fence" effect.



^{* 5} feet measured to nearest lane line or centerline.

Intersection sight distance (ISD) is calculated as follows:

 $S = 1.47 V_{major} t_g$, Where $t_g = \text{time gap for major road}$

See AASHTO p.657-663

 $V_{mejor} = 85^{th}$ percentile speed (mph) **

t_g = 7.5/6.5 sec for Passenger Cars; left/right turn, respectively (add 0.5 sec for each 9.5 sec for Single Unit Trucks extra lane traversed)

11.5 sec for Combination Trucks

STOPPING SIGHT DISTANCE (SSD)

The minimum stopping sight distance (SSD) is the roadway distance required by the driver of a vehicle, traveling at a given speed, to bring the vehicle to a stop after an object on the road becomes visible. Stopping sight distance is measured from the driver's eyes, 3.5 feet above the pavement surface, to an object 2.0 feet high on the roadway. SSD is calculated as follows:

 $S = 1.47 Vt + 1.075 V^2$

Where: V = 85th Percentile Speed

See AASHTO Exhibit 3-1

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 $t = 2.5 \sec$

 $a = 11.2 \text{ ft/sec}^2$

^{**15} feet measured from face-of-curb or edge-of-travelway.

S = Intersection sight distance in feet on drivers left and right for right turns, left turns and through traffic.

(From the 2004 AASHTO Geometric Design of Highways and Streets)

^{** 85}th percentile speed may be different in each direction due to grade, alignment, etc. Please calculate separately.